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10/655,719	09/05/2003	Stephen M. Kroon	D/ A3379	8793

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EXAMINER	
BLACKMAN, ANTHONY J	
ART UNIT	**PAPER NUMBER**
2676	

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/655,719	KROON	
	Examiner	Art Unit	
	ANTHONY J BLACKMAN	2676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 6 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Page 11, lines 6-8 disclose a wherein clause containing "...*normalizing the half-tone threshold values that produced such N-pixel tile.*" The specification does not explain or at least state verbatim the wherein clause containing "normalization" processing.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 6 recites the limitation "...normalizing the half-tone threshold values" in the "wherein" clause from lines 6-8. There is insufficient antecedent basis for this limitation in the claim.

Claim Objections

5. Claims 4-7 objected to because of the following informalities: each depends upon claim 11 as recited (typing error) and should depend upon claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by SNYDER et al, US Patent No. 5,303,334.

7. As per claim 1, examiner interprets SNYDER et al disclose the following features and limitations as claimed,

A method of detecting a portion of a half-toned uniform

area/halftoned screen pattern (column 2, lines 5-9, the halftoned screen pattern bears similar results to a half-toned uniform area and column 13, lines 21-22)

in a half-toned bit-map/halftoned pattern area (column 2, lines 5-9, the halftoned screen pattern bears similar results to a half-toned bit-map. Further, the raster image processing (RIP) is associated with a bit-map processing – column 1, lines 44-55 and further still column 2, lines 29-43 discloses a raster device pixel and halftone screen pattern, wherein setting device pixel data.)

comprising:

partitioning a half-toned bit map into a plurality of N-pixel tiles (column 4, lines 55-68 – the image of each filled region is divided into segments),

each N-pixel tile having a marked pixel count M (column 11, lines 19-24. Further, the marking engine),

and wherein the half-toned bit map is produced pursuant to a predetermined/(a stored preset gray level)

half-toning procedure (column 13, lines 21-37-the marking of the pixels in black and white equates to the halftoning step and the region or portion of a region represents represents a bit-map)

comparing each N-pixel tile to a corresponding N-pixel reference

tile that comprises a half-toned binary pattern that would be produced by the predetermined half-toning procedure for such N-pixel tile if the portion of a pre-half-toned data that resulted in such N-pixel tile were of uniform lightness (column 13, lines 21-37-setting the gray level with the threshold level/reference determines whether the output is gray, white or black);

identifying an N-pixel tile as comprising a portion of a half-toned

uniform region if it matches the corresponding N-pixel reference tile/thresholding values (the output color determining means for gray, white or black by the threshold processing for an evenly screened gray level provides identification of the pixel tiles as claimed. See column 13, lines 21-37. Column 2, lines 29-44 also discloses setting the gray level to a corresponding threshold level. The corresponding threshold level bears similar results with the reference tile).

8. As per claim 2, SNYDER et al meet limitations of claim 1, including, wherein comparing each N-pixel tile to an N-pixel reference tile comprises comparing each N-pixel tile to an associated N-pixel reference tile that comprises a half-toned binary pattern that would be produced by the predetermined half-toning procedure for such N-pixel tile if the portion of the original data that resulted in such N-pixel tile were of uniform lightness (column 13, lines 21-37), wherein the N-pixel reference tile includes the same number of marked pixels M as the N-pixel tile to which it is being compared (See column 13, lines 21-37. Column 2, lines 29-44 also discloses setting the gray level to a corresponding threshold level. The corresponding threshold level bears similar results with the reference tile).

9. As per claim 3, examiner interprets SNYDER et al as being substantially similar to the features and limitations of claim 1

10. As per claim 4, examiner interprets SNYDER et al as being substantially similar to the features and limitations of claim 2

11. As per claim 5, SNYDER et al meet limitations and features of claim 1, including, wherein comparing each N-pixel tile to an N-pixel reference tile
comprises
comparing each N-pixel tile to an associated N-pixel reference tile that comprises a half-toned binary pattern (column 12, lines 23-35)
that would be produced for such N-pixel tile pursuant to the predetermined
threshold value array if the portion of the original data that resulted in such N-
pixel tile were of uniform lightness /(the 1 or more gray-levels corresponds to the uniform lightness. Further, see column 13, lines 21-22), wherein the pixels of the N-pixel reference
tile are filled pursuant to a fill order that is based on the half-tone threshold
values that produced such N-pixel tile (See column 13, lines 21-37. Column 2, lines 29-44 also discloses setting the gray level to a corresponding plurality of threshold levels. The corresponding threshold level bears similar results with the reference tile value(s)).

13. As per claim 7, SNYDER et al meet limitations of claim 1, including the following features and limitations of claim 7 wherein comparing each N-pixel tile to an N-pixel reference tile comprises comparing each N-pixel tile to an associated N-pixel reference tile that comprises a half-toned binary pattern (column 12, lines 23-35)

that would be produced for such N-pixel tile pursuant to the predetermined threshold value array if the portion of the original data that resulted in such N-pixel tile were of uniform lightness /(the 1 or more gray-levels corresponds to the uniform lightness. Further, see column 13, lines 21-22), wherein the pixels of the N-pixel reference tile are filled pursuant to a fill order pattern of fill order values that comprise a sequence that corresponds to a relative ordering of the half-tone threshold values that produced such N-pixel tile (column 20, lines 25-29-the selectively turning on and off of the pseudo-random noise generators are representative of a pattern by the fixed gray-level fills or for image fills as well as for blends), wherein the fill order values are between 1 and N (the range between 1 and N is met with the more than one set of different fills, i.e., gray –level fills and blends).

14. AS per claim 8, examiner interprets claim 8 to be substantially similar to claim 1.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over SNYDER et al, US Patent No. 5,303,334 in view of ADAMS, Jr. et al, US Patent Application Publication, Pub. No. 2003/0058250.

17. As per claim 6, SNYDER et al meet limitations and features of claim 1, including the following features and limitations of claim 6,

wherein comparing each N-pixel tile to an N-pixel reference tile comprises comparing each N-pixel tile to an associated N-pixel reference tile that comprises a half-toned binary pattern (column 12, lines 23-35)

that would be produced for such N-pixel tile pursuant to the predetermined threshold value array if the portion of the original data that resulted in such N-pixel tile were of uniform lightness /(the 1 or more gray-levels corresponds to the uniform lightness. Further, see column 13, lines 21-22), however, SNYDER et al, unlike ADAMS JR. et al, does not expressly teach the following features and limitations as suggested by ADAMS JR. et al,

wherein the pixels of the N-pixel reference tile are filled by normalizing means/ (see sections 0090-0092*(the Halftone Construction Algorithm –(HCA) that performs substantially similar effects as the normalizing means)* the half-tone threshold values that produced such N-pixel tile (sections 0090-0092). It would have been obvious to one skilled in the art at the time of the invention to utilize the *Halftone Construction Algorithm –(HCA) that performs substantially similar effects as the normalizing means* producing halftone construction from the output provided by the Averaging Algorithm (section 0090), along with the Bayer Threshold Order array that insures visual uniformity (section 0091) of ADAMS JR. et al to modify the system to provide instructions to provide graphical output (column 1, lines 5-15) with at least selected gray levels correlating the one raster device pixel with a corresponding threshold value in a

reference array of threshold values, the reference array threshold values corresponding to an array of pixels in a halftone screen pattern (column 2, lines 30-44) of SNYDER et al because, for the at least reason, the use of an order array by ADAMS JR. et al, is a precaution that further minimizes the possibility of pattern artifacts (section 0092). Therefore, because Halftone Construction Algorithm and the order array further minimize the possibility of artifacts in halftone processing, it would have been obvious to one skilled in the art to improve minimizing artifacts in a halftone processing system.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. KAKUTANI et al, US Patent No. 6,382,757 disclose normalizing a dither matrix (figure 20). TSUCHIYA et al, US Patent No. 5,960,106 disclose normalizing operations (circuit 64) for halftone thresholds (figures 20 and 31). ULICHNEY, Patent Application Publication, Pub. No. 2001/0045927 disclose normalizing threshold values in a dithering system (sections 12, 19, 21, 28 and 58-59).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J BLACKMAN whose telephone number is 703-305-0833. The examiner can normally be reached on FLEX SCHEDULE.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 703-308-6829. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ANTHONY J BLACKMAN
Examiner
Art Unit 2676

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